

FORM PTO-144
(Rev. 2-32)U.S. Department of Commerce
Patent and Trademark Office

Atty. Docket No.

02-312-G
(600/041)

Serial No.

10780,447

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

Applicant:

Vargeese et al.

Filing Date:

February 13, 2004

Group:

1616

U.S. PATENT APPLICATION DOCUMENTS

Examiner Initial		Document Number	Filing Date	Name	Class	Subclass	Publication Date if Appropriate
ESO	*	09/301,511	04/28/99	Beigelman et al.			
ESO	*	09/800,594	03/06/01	Usman et al.			
ESO	*	10/427,160	04/30/03	Beigelman et al.			
ESO	*	60/082,404	04/20/98	Thompson et al.			
ESO	*	60/292,217	05/18/01	Adamic et al.			
ESO	*	60/306,883	07/20/01	Vargeese et al.			
ESO	*	60/311,865	08/13/01	Vargeese et al.			
ESO	*	60/358,580	02/20/02	Beigelman et al.			
ESO	*	60/362,016	03/06/02	Matulic-Adamic et al.			
ESO	*	60/363,124	03/11/02	Beigelman et al.			
ESO	*	60/386,782	06/06/02	Beigelman et al.			
ESO	*	60/406,784	08/29/02	Beigelman et al.			
ESO	*	60/408,378	09/05/02	Beigelman et al.			
ESO	*	60/409,293	09/09/02	Beigelman et al.			

U.S. PATENT DOCUMENTS

Examiner		Document					Filing Date if
EXAMINER	/Eric Olson/				DATE CONSIDERED	10/30/2006	

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 (Rev. 2-32) INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 02-312-G (600/041)	Serial No. 10780,447
		Applicant: Vargeese et al.	
		Filing Date: February 13, 2004	Group: 1616

Initial		Number	Date	Name	Class	Subclass	Appropriate
ESO	*	4,987,071	01/22/91	Cech et al.			
ESO	*	5,108,921	04/28/92	Low et al.			
ESO	*	5,334,711	08/02/94	Sproat			
ESO	*	5,416,016	05/16/95	Low et al.			
ESO	*	5,589,332	12/31/96	Shih et al.			
ESO	*	5,627,053	05/06/97	Usman et al.			
ESO	*	5,631,359	05/20/97	Chowrira et al.			
ESO	*	5,631,360	05/20/97	Usman et al.			
ESO	*	5,633,133	05/27/97	Long et al.			
ESO	*	5,670,633	09/23/97	Cook et al.			
ESO	*	5,672,695	09/30/97	Eckstein et al.			
ESO	*	5,716,824	02/10/98	Beigelman et al.			
ESO	*	5,741,679	04/21/98	George et al.			
ESO	*	5,792,847	08/11/98	Buhr et al.			
ESO	*	5,804,683	09/08/98	Usman et al.			
ESO	*	5,814,620	09/29/98	Robinson et al.			
ESO	*	5,831,071	11/03/98	Usman et al.			
ESO	*	5,834,186	11/10/98	George et al.			
ESO	*	5,849,902	12/15/98	Arrow et al.			

EXAMINER /Eric Olson/	DATE CONSIDERED 10/30/2006
---------------------------------	--------------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 (Rev. 2-32) U.S. Department of Commerce Patent and Trademark Office INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	Atty. Docket No. 02-312-G (600/041)	Serial No. 10780,447
	Applicant: Vargeese et al.	
	Filing Date: February 13, 2004	Group: 1616

ESO	*	5,871,914	02/16/99	Nathan et al.			
ESO	*	5,898,031	04/27/99	Crooke			
ESO	*	5,989,912	11/23/99	Arrow et al.			
ESO	*	5,998,203	12/07/99	Adamic et al.			
ESO	*	6,001,311	12/14/99	Brennan			
ESO	*	6,005,087	12/21/99	Cook et al.			
ESO	*	6,008,400	12/28/99	Scaringe et al.			
ESO	*	6,054,576	04/25/00	Bellon et al.			
ESO	*	6,107,094	08/22/00	Crooke			
ESO	*	6,111,086	08/29/00	Scaringe et al.			
ESO	*	6,117,657	09/12/00	Usman et al.			
ESO	*	6,153,737	11/28/00	Manoharan et al.			
ESO	*	6,162,909	12/19/00	Bellon et al.			
ESO	*	6,168,778	01/02/01	Janjic et al.			
ESO	*	6,303,773	10/16/01	Bellon et al.			
ESO	*	6,335,434	01/01/02	Guzaev et al.			
ESO	*	6,353,098	03/05/02	Usman et al.			
ESO	*	6,362,323	03/26/02	Usman et al.			
ESO	*	6,395,492	05/28/02	Manoharan et al.			
ESO	*	6,437,117	08/20/02	Usman et al.			

EXAMINER /Eric Olson/	DATE CONSIDERED 10/30/2006
---------------------------------	--------------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No.	Serial No.
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		02-312-G (600/041)	10780,447
		Applicant: Vargeese et al.	
		Filing Date:	Group:
		February 13, 2004	1616

ESO	*	6,469,158	10/22/02	Usman et al.			
ESO	*	6,476,205	11/05/02	Buhr et al.			
ESO	*	6,506,559	01/14/03	Fire et al.			
ESO	*	6,528,631	03/04/03	Cook et al.			

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
ESO	1	2,359,180	08/03/00	CA (Kreutzer et al.)				
ESO	*	0 360 257	02/28/90	EP (Hampel et al.)				
ESO	*	88/09810	12/15/88	WO (Tullis et al.)				
ESO	*	89/02439	03/23/89	WO (Arnold et al.)				
ESO	*	90/12096	10/18/90	WO (Low et al.)				
ESO	2	90/14090	11/29/90	WO (Gillespie et al.)				
ESO	*	91/03162	03/21/91	WO (Rossi et al.)				
ESO	*	92/07065	04/30/92	WO (Eckstein et al.)				
ESO	*	93/15187	08/05/93	WO (Usman et al.)				
ESO	*	93/23569	11/25/93	WO (Draper et al.)				
ESO	3	94/01550	01/20/94	WO (Agrawal et al.)				
ESO	*	95/06731	03/09/95	WO (Usman et al.)				

EXAMINER	/Eric Olson/	DATE CONSIDERED	10/30/2006
----------	--------------	-----------------	------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 (Rev. 2-32) U.S. Department of Commerce Patent and Trademark Office INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		Atty. Docket No. 02-312-G (600/041)	Serial No. 10780,447
		Applicant: Vargeese et al.	
		Filing Date: February 13, 2004	Group: 1616

ESO	*	95/11304	04/27/95	WO (Usman et al.)				
ESO	*	95/11910	05/04/95	WO (Dudycz et al.)				
ESO	*	96/10390	04/11/96	WO (Ansell et al.)				
ESO	*	96/10391	04/11/96	WO (Choi et al.)				
ESO	*	96/10392	04/11/96	WO (Holland et al.)				
ESO	*	96/22689	08/01/96	WO (Pyle et al.)				
ESO	*	97/26270	07/24/97	WO (Beigelman et al.)				
ESO	*	98/13526	04/02/98	WO (Woolf et al.)				
ESO	*	98/27104	06/25/98	WO (Breaker et al.)				
ESO	*	98/28317	07/02/98	WO (Matulic-Adamic et al.)				
ESO	*	98/43993	10/08/98	WO (Breaker et al.)				
ESO	*	98/58058	12/23/98	WO (Ludwig & Sproat)				
ESO	*	99/07409	02/18/99	WO (Deschamps de Paillette et al.)				
ESO	*	99/16871	04/08/99	WO (Eckstein et al.)				
ESO	*	99/17120	04/08/99	WO (Davis and Bishop)				
ESO	*	99/29842	06/17/99	WO (Sullenger et al.)				
ESO	*	99/32619	07/01/99	WO (Fire et al.)				
ESO	4	99/49029	09/30/99	WO (Graham et al.)				
ESO	5	99/53050	10/21/99	WO (Waterhouse et al.)				
ESO	*	99/54459	10/28/99	WO (Thompson et al.)				

EXAMINER /Eric Olson/	DATE CONSIDERED 10/30/2006
---------------------------------	--------------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office		Atty. Docket No. 02-312-G (600/041)	Serial No. 10780,447
			Applicant: Vargeese et al.	
			Filing Date: February 13, 2004	Group: 1616

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use several sheets if necessary)

ESO	*	99/55857	11/04/99	WO (Beigelman et al.)				
ESO	6	99/61631	12/02/99	WO (Heifetz et al.)				
ESO	*	99/66063	12/23/99	WO (Manoharan et al.)				
ESO	*	00/01846	01/13/00	WO (Plaetinck et al.)				
ESO	*	00/24931	05/04/00	WO (Nathan and Ellington)				
ESO	*	00/26226	05/11/00	WO (Breaker et al.)				
ESO	*	00/44895	08/03/00	WO (Kreutzer et al.)				
ESO	*	00/44914	08/03/00	WO (Li et al.)				
ESO	7	00/49035	08/24/00	WO (Sheen et al.)	(
ESO	8	00/63364	10/26/00	WO (Pachuk et al.)				
ESO	*	01/29058	04/26/01	WO (Mello et al.)				
ESO	*	01/36646	05/25/01	WO (Zernicka-Goetz et al.)				
ESO	9	01/96584	12/20/01	WO (Mushegian et al)				
ESO	*	02/15876	05/17/02	WO (Beigelman et al.)				
ESO	10	02/22636	03/21/02	WO (Bennett et al.)				
ESO	*	03/070918 (PCT/US03/05346)	08/28/03	WO (McSwiggen et al.)				
ESO	*	03/074654 (PCT/US03/05028)	09/12/03	WO (McSwiggen et al.)				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc).

EXAMINER /Eric Olson/	DATE CONSIDERED 10/30/2006
-------------------------------------	--

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 02-312-G (600/041)	Serial No. 10780,447
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)			
		Applicant: Vargeese et al.	
		Filing Date: February 13, 2004	Group: 1616

ESO	*	Abramovitz et al., "Catalytic Role of 2'-Hydroxyl Groups Within a Group II Intron Active Site," <u>Science</u> 271:1410-1413 (1996)
ESO	*	Allshire, "RNAi and Heterochromatin - A Hushed-up Affair," <u>Science</u> 297:1818-1819 (2002)
ESO	*	Antopolsky et al., "Peptide-Oligonucleotide Phosphorothioate Conjugates with Membrane Translocation and Nuclear Localization Properties," <u>Bioconjugate Chem.</u> 10:598-606 (1999)
ESO	*	Arap et al., "Cancer Treatment by Targeted Drug Delivery to Tumor Vasculature in a Mouse Model," <u>Science</u> 279:377-380 (1998)
ESO	*	Baenziger and Fiete, "Galactose and N-Acetylgalactosamine-Specific Endocytosis of Glycopeptides by Isolated Rat Hepatocytes," <u>Cell</u> 22:611-620 (1980)
ESO	11	Bahramian et al., "Transcriptional and Posttranscriptional Silencing of Rodent $\alpha 1(I)$ Collagen by a Homologous Transcriptionally Self-Silenced Transgene," <u>Molecular and Cellular Biology</u> , 274-283 (1999)
ESO	*	Banerjee and Turner, "The Time Dependence of Chemical Modification Reveals Slow Steps in the Folding of a Group I Ribozyme," <u>Biochemistry</u> 34:6504-6512 (1995)
ESO	*	Bartel and Szostak, "Isolation of New Ribozymes from a Large Pool of Random Sequences," <u>Science</u> 261:1411-1418 (1993)
ESO	*	Bass, "The short answer," <u>Nature</u> 411:428-429 (2001)
ESO	*	Beaucage and Iyer, "The Functionalization of Oligonucleotides Via Phosphoramidite Derivatives," <u>Tetrahedron</u> 49:1925-1963 (1993)
ESO	*	Beaudry and Joyce, "Directed Evolution of an RNA Enzyme," <u>Science</u> 257:635-641 (1992)
ESO	*	Beigelman et al., "Chemical Modification of Hammerhead Ribozymes," <u>The Journal of Biological Chemistry</u> 270:25702-25708 (1995)
ESO	*	Bellon et al., "Amino-Linked Ribozymes: Post-Synthetic Conjugation of Half-Ribozymes," <u>Nucleosides & Nucleotides</u> 16:951-954 (1997)

EXAMINER /Eric Olson/	DATE CONSIDERED 10/31/2006
---------------------------------	--------------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 02-312-G (600/041)	Serial No. 10780,447
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		Applicant: Vargeese et al.	
		Filing Date: February 13, 2004	Group: 1616

ESO	*	Bellon et al., "Post-synthetically Ligated Ribozymes: An Alternative Approach to Iterative Solid Phase Synthesis," <i>Bioconjugate Chem.</i> 8:204-212 (1997)
ESO	*	Berzal-Herranz et al., "Essential nucleotide sequences and secondary structure elements of the hairpin ribozyme," <i>EBMO J.</i> 12:2567-2574 (1993)
ESO	*	Berzal-Herranz et al., "In vitro selection of active hairpin ribozymes by sequential RNA-catalyzed cleavage and ligation reactions," <i>Genes & Development</i> 6:129-134 (1992)
ESO	*	Bevilacqua et al., "A Mechanistic Framework for the Second Step of Splicing Catalyzed by the <i>Tetrahymena</i> Ribozyme," <i>Biochemistry</i> 35:648-668 (1996)
ESO	*	Bongartz et al., "Improved biological activity of antisense oligonucleotides conjugated to a fusogenic peptide," <i>Nucleic Acids Research</i> 22:4681-4688 (1994)
ESO	*	Bonora et al., "Biological Properties of Antisense Oligonucleotides Conjugated to Different High-Molecular Mass Poly(ethylen glycols)," <i>Nucleosides & Nucleotides</i> 18:1723-1725 (1999)
ESO	*	Bonora et al., "Synthesis and Characterization of High-Molecular Mass Polyethylene Glycol-Conjugated Oligonucleotides," <i>Bioconjugate Chem.</i> 8:793-797 (1997)
ESO	*	Breaker and Joyce, "Inventing and improving ribozyme function: rational design versus iterative selection methods," <i>TIBTECH</i> 12:268-275 (1994)
ESO	*	Breaker et al., "A DNA enzyme with Mg ²⁺ -dependent RNA phosphoesterase activity," <i>Chemistry & Biology</i> 2(10):655-660 (1995)
ESO	*	Breaker, "Are engineered proteins getting competition from RNA?" <i>Current Opinion in Biotechnology</i> 7:442-448 (1996)
ESO	*	Breaker, "Catalytic DNA: in training and seeking employment," <i>Nature Biotechnology</i> 17:422-423 (1999)
ESO	*	Brennan et al., "Two-Dimensional Parallel Array Technology as a New Approach to Automated Combinatorial Solid-Phase Organic Synthesis," <i>Biotechnology and Bioengineering (Combinatorial Chemistry)</i> 61:33-45 (1998)
ESO	*	Brody and Gold, "Aptamers as therapeutic and diagnostic agents," <i>Reviews in Molecular Biotechnology</i> 74:5-13 (2000)

EXAMINER	/Eric Olson/	DATE CONSIDERED	10/31/2006
----------	--------------	-----------------	------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 02-312-G (600/041)	Serial No. 10780,447
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		Applicant: Vargeese et al.	
		Filing Date: February 13, 2004	Group: 1616

ESO	*	Burgin et al., "Chemically Modified Hammerhead Ribozymes with Improved Catalytic Rates," <u>Biochemistry</u> 35:14090-14097 (1996) (volume no. mistakenly listed as 6)
ESO	*	Burlina et al., "Chemical Engineering of RNase Resistant and Catalytically Active Hammerhead Ribozymes," <u>Bioorganic & Medicinal Chemistry</u> 5:1999-2010 (1997)
ESO	*	Caruthers et al., "Chemical Synthesis of Deoxyoligonucleotides and Deoxyoligonucleotide Analogs," <u>Methods in Enzymology</u> 211:3-19 (1992)
ESO	*	Cebon et al., "New DNA Modification Strategies Involving Oxime Formation," <u>Aust. J. Chem.</u> 53:333-339 (2000)
ESO	*	Cech, "Ribozymes and Their Medical Implications," <u>JAMA</u> 260:3030-3034 (1988)
ESO	*	Chaloin et al., "Design of Carrier Peptide-Oligonucleotide Conjugates With Rapid Membrane Translocation and Nuclear Localization Properties," <u>BBRC</u> 243:601-608 (1998)
ESO	*	Chartrand et al., "An oligodeoxyribonucleotide that supports catalytic activity in the hammerhead ribozyme domain," <u>Nucleic Acids Research</u> 23(20):4092-4096 (1995)
ESO	*	Chowrira et al., "Novel guanosine requirement for catalysis by the hairpin ribozyme," <u>Nature</u> 354:320-322 (1991)
ESO	*	Cload and Schepartz, "Polyether Tethered Oligonucleotide Probes," <u>J. Am. Chem. Soc.</u> 113:6324-6326 (1991)
ESO	*	Collins and Olive, "Reaction Conditions and Kinetics of Self-Cleavage of a Ribozyme Derived From <i>Neurospora</i> VS RNA," <u>Biochemistry</u> 32:2795-2799 (1993)
ESO	*	Connolly et al., "Binding and Endocytosis of Cluster Glycosides by Rabbit Hepatocytes," <u>The Journ. of Biol. Chem.</u> 257:939-945 (1982)
ESO	*	Crooke, "Advances in Understanding the Pharmacological Properties of Antisense Oligonucleotides," <u>Advances in Pharmacology</u> 40:1-49 (1997)
ESO	*	Crooke, "Antisense Therapeutics," <u>Biotechnology and Genetic Engineering Reviews</u> 15:121-157 (1998)

EXAMINER	/Eric Olson/	DATE CONSIDERED	10/31/2006
----------	--------------	-----------------	------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 02-312-G (600/041)	Serial No. 10780,447
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		Applicant: Vargeese et al.	
		Filing Date: February 13, 2004	Group: 1616

ESO	*	Crooke, "Progress in Antisense Technology: The End of the Beginning," <u>Methods in Enzymology</u> 313:3-45 (1999)
ESO	*	Daniels et al., "Two Competing Pathways for Self-splicing by Group II Introns: A Quantitative Analysis of <i>in Vitro</i> Reaction Rates and Products," <u>J. Mol. Biol.</u> 256:31-49 (1996)
ESO	*	Defrancq and Lhomme, "Use of an Aminooxy Linker for the Functionalization of Oligodeoxyribonucleotides," <u>Bioorganic & Medicinal Chem. Lett.</u> 11:931-933 (2001)
ESO	*	Delihias et al., "Natural antisense RNA/target RNA interactions: Possible models for antisense oligonucleotide drug design," <u>Nature Biotechnology</u> 15:751-753 (1997)
ESO	*	Durand et al., "Circular Dichroism Studies of an Oligodeoxyribonucleotide Containing a Hairpin Loop Made of a Hexaethylene Glycol Chain: Conformation and Stability," <u>Nucleic Acids Research</u> 18:6353-6359 (1990) [sometimes referred to as Seela and Kaiser]
ESO	*	Duval-Valentin, "Specific inhibition of transcription by triple helix-forming oligonucleotides," <u>Proc. Natl. Acad. Sci. USA</u> 89:504-508 (1992)
ESO	*	Earnshaw et al., "Modified Oligoribonucleotides as Site-Specific Probes of RNA Structure and Function," <u>Biopolymers</u> 48:39-55 (1998)
ESO	*	Egholm et al., "PNA hybridizes to complementary oligonucleotides obeying the Watson-Crick hydrogen-bonding rules," <u>Nature</u> 365:566-568 (1993)
ESO	*	Elbashir et al., "Duplexes of 21-nucleotide RNAs mediate RNA interference in cultured mammalian cells," <u>Nature</u> 411:494-498 (2001)
ESO	12	Elbashir et al., "Functional Anatomy of siRNAs for Mediating Efficient RNAi in <i>Drosophila Melanogaster</i> Embryo Lysate," <u>The EMBO Journal</u> 20:6877-6888 (2001)
ESO	*	Feldstein et al., "Two sequences participating in the autolytic processing of satellite tobacco ringspot virus complementary RNA," <u>Gene</u> 82:53-61 (1989)
ESO	*	Ferentz and Verdine, "Disulfied Cross-Linked Oligonucleotides," <u>J. Am. Chem. Soc.</u> 113:4000-4002 (1991)
ESO	*	Findeis, "Stepwise Synthesis of a GalNAc-containing Cluster Glycoside Ligand of the Asialoglycoprotein Receptor," <u>Int. J. Peptide Protein Res.</u> 43:477-485 (1994)

EXAMINER /Eric Olson/	DATE CONSIDERED 10/31/2006
---------------------------------	--------------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 02-312-G (600/041)	Serial No. 10780,447
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		Applicant: Vargeese et al.	
		Filing Date: February 13, 2004	Group: 1616

ESO	13	Fire et al., "Potent and Specific Genetic Interference by Double-Stranded RNA in <i>Caenorhabditis Elegans</i> ," <i>Nature</i> 391:806-811(1998)
ESO	*	Forster and Altman, "External Guide Sequences for an RNA Enzyme," <i>Science</i> 249:783-786 (1990)
ESO	*	Fox, "Targeting DNA with Triplexes," <i>Current Medicinal Chemistry</i> 7:17-37 (2000)
ESO	*	Freier et al., "Improved free-energy parameters for predictions of RNA duplex stability," <i>Proc. Natl. Acad. Sci. USA</i> 83:9373-9377 (1986) [sometimes referred to as Frier]
ESO	14	Futami et al., "Induction of Apoptosis in HeLa Cells with siRNA Expression Vector Targeted Against bcl-2," <i>Nucleic Acids Research Supplement</i> 2:251-252 (2002)
ESO	*	Godwin et al., "The Synthesis of Biologically Active Pteroyl oligo- γ -L-Glutamates (Folic Acid Conjugates)," <i>The Journal of Biological Chemistry</i> 247:2266-2271 (1972)
ESO	*	Gold et al., "Diversity of Oligonucleotide Functions," <i>Annu. Rev. Biochem.</i> 64:763-797 (1995)
ESO	*	Grasby et al., "Purine Functional Groups in Essential Residues of the Hairpin Ribozyme Required for Catalytic Cleavage of RNA," <i>Biochemistry</i> 34:4068-4076 (1995)
ESO	*	Griffin et al., "Group II intron ribozymes that cleave DNA and RNA linkages with similar efficiency, and lack contacts with substrate 2'-hydroxyl groups," <i>Chemistry & Biology</i> 2:761-770 (1995)
ESO	*	Guerrier-Takada et al., "The RNA Moiety of Ribonuclease P Is the Catalytic Subunit of the Enzyme," <i>Cell</i> 35:849-857 (1983)
ESO	*	Guo and Collins, "Efficient <i>trans</i> -cleavage of a stem-loop RNA substrate by a ribozyme derived from <i>Neurospora</i> VS RNA," <i>EMBO J.</i> 14:368-376 (1995)
ESO	*	Habus et al., "A Mild and Efficient Solid-Support Synthesis of Novel Oligonucleotide Conjugates," <i>Bioconjugate Chem.</i> 9:283-291 (1998)
ESO	*	Hall et al., "Establishment and Maintenance of a Heterochromatin Domain," <i>Science</i> 297:2232-2237 (2002)

EXAMINER /Eric Olson/	DATE CONSIDERED 10/31/2006
---------------------------------	--------------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No.	Serial No.
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		02-312-G (600/041)	10780,447
		Applicant: Vargeese et al.	
		Filing Date:	Group:
		February 13, 2004	1616

ESO	15	Hamilton, et al., "A Species of Small Antisense RNA in Posttranscriptional Gene Silencing in Plants," <i>Science</i> , 286, 950-952 (1999)
ESO	*	Hammann et al., "Length Variation of Helix III in a Hammerhead Ribozyme and Its Influence on Cleavage Activity," <i>Antisense & Nucleic Acid Drug Development</i> 9:25-31 (1999)
ESO	*	Hampel and Tritz, "RNA Catalytic Properties of the Minimum (-)sTRSV Sequence," <i>Biochemistry</i> 28:4929-4933 (1989)
ESO	*	Hampel et al., "'Hairpin' Catalytic RNA Model: Evidence for Helices and Sequence Requirement for Substrate RNA," <i>Nucleic Acids Research</i> 18:299-304 (1990)
ESO	*	Harris et al., "Identification of phosphates involved in catalysis by the ribozyme RNase P RNA," <i>RNA</i> 1:210-218 (1995)
ESO	*	Haseloff and Gerlach, "Sequences required for self-catalysed cleavage of the satellite RNA of tobacco ringspot virus," <i>Gene</i> 82:43-52 (1989)
ESO	*	Hegg et al., "Kinetics and Thermodynamics of Intermolecular Catalysis by Hairpin Ribozymes," <i>Biochemistry</i> 34:15813-15828 (1995)
ESO	*	Hermann and Patel, "Adaptive Recognition by Nucleic Acid Aptamers," <i>Science</i> 287:820-825 (2000)
ESO	*	Herschlag and Cech, "Catalysis of RNA Cleavage by the <i>Tetrahymena thermophila</i> Ribozyme 1. Kinetic Description of the Reaction of an RNA Substrate Complementary to the Active Site," <i>Biochemistry</i> 29:10159-10171 (1990)
ESO	*	Herschlag and Cech, "Catalysis of RNA Cleavage by the <i>Tetrahymena thermophila</i> Ribozyme. 2. Kinetic Description of the Reaction of an RNA Substrate That Forms a Mismatch at the Active Site," <i>Biochemistry</i> 29:10172-10180 (1990)
ESO	*	Hertel et al., "A Kinetic Thermodynamic Framework for the Hammerhead Ribozyme Reaction," <i>Biochemistry</i> 33:3374-3385 (1994)
ESO	*	Hertel et al., "Numbering System for the Hammerhead," <i>Nucleic Acids Research</i> 20:3252 (1992)

EXAMINER	/Eric Olson/	DATE CONSIDERED	10/31/2006
----------	--------------	-----------------	------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 (Rev. 2-32) U.S. Department of Commerce Patent and Trademark Office INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	Atty. Docket No. 02-312-G (600/041)	Serial No. 10780,447	
		Applicant: Vargeese et al.	
		Filing Date: February 13, 2004	Group: 1616

ESO	*	Hudson et al., "Cellular Delivery of Hammerhead Ribozymes Conjugated to a Transferrin Receptor Antibody," <u>Int'l Jour. of Pharmaceutics</u> 182:49-58 (1999)
ESO	*	Hunziker et al., "Nucleic Acid Analogues: Synthesis and Properties, in Modern Synthetic Methods," <u>VCH</u> , 331-417
ESO	*	Hutvagner and Zamore, "A MicroRNA in a Multiple-Turnover RNAi Enzyme Complex," <u>Science</u> 297:2056-2060 (2002)
ESO	16	International Search Report for PCT/US03/05346 mailed October 17, 2003
ESO	17	International Search Report for PCT/US 03/05028 mailed October 17, 2003
ESO	*	Ishiwata et al., "Physical-Chemistry Characteristics and Biodistribution of Poly(ethylene glycol)-Coated Liposomes Using Poly(oxyethylene) Cholesteryl Ether," <u>Chem. Pharm. Bull.</u> 43:1005-1011 (1995) (mistakenly referred to as Ishiwataet)
ESO	*	Ishizaka et al., "Isolation of Active Ribozymes from an RNA Pool of Random Sequences Using an Anchored Substrate RNA," <u>Biochemical and Biophysical Research Communication</u> 214(2):403-409 (1995)
ESO	*	Jarvis et al., "Optimizing the Cell Efficacy of Synthetic Ribozymes," <u>Journal of Biological Chemistry</u> 271:29107-29112 (1996)
ESO	*	Jaschke et al., "Automated Incorporation of Polyethylene Glycol into Synthetic Oligonucleotides," <u>Tetrahedron Letters</u> 34:301-304 (1993) (sometimes mistakenly referred to as Jscke)
ESO	*	Jaschke et al., "Synthesis and Properties of Oligodeoxyribonucleotide-polyethylene Glycol Conjugates," <u>Nucleic Acids Research</u> 22:4810-4817 (1994)
ESO	*	Jaschke, "Oligonucleotide-Poly(ethylene glycol) Conjugates: Synthesis, Properties, and Application," <u>American Chemical Society</u> 680:265-283 (1997)
ESO	*	Jayasena, "Aptamers: An Emerging Class of Molecules that Rival Antibodies in Diagnostics," <u>Clinical Chemistry</u> 45:1628-1650 (1999)
ESO	*	Jenuwein, "An RNA-Guided Pathway for the Epigenome," <u>Science</u> 297:2215-2218 (2002)

EXAMINER /Eric Olson/	DATE CONSIDERED 10/31/2006
---------------------------------	--------------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 02-312-G (600/041)	Serial No. 10780,447
		Applicant: Vargeese et al.	
		Filing Date: February 13, 2004	Group: 1616

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use several sheets if necessary)

ESO	*	Joliet-Riant and Tillement, "Drug transfer across the blood-brain barrier and improvement of brain delivery," <i>Fundam. Clin. Pharmacol.</i> 13:16-26 (1999)
ESO	*	Joseph et al., "Substrate selection rules for the hairpin ribozyme determined by in vitro selection, mutation, and analysis of mismatched substrates," <i>Genes & Development</i> 7:130-138 (1993)
ESO	*	Joyce et al., "Amplification, mutation and selection of catalytic RNA," <i>Gene</i> 82:83-87 (1989)
ESO	*	Joyce, "Directed Molecular Evolution," <i>Scientific American</i> 267:90-97 (1992)
ESO	*	Karpeisky et al, "Highly Efficient Synthesis of 2'-O-Amino Nucleosides And Their Incorporation in Hammerhead Ribozymes," <i>Tetrahedron Letters</i> 39:1131-1134 (1998)
ESO	*	Knitt et al., "ph Dependencies of the <i>Tetrahymena</i> Ribozyme Reveal an Unconventional Origin of an Apparent pK_a ," <i>Biochemistry</i> 35:1560-1570 (1996)
ESO	*	Kore, et al., "Sequence specificity of the hammerhead ribozyme revisited; the NIH rule," <i>Nucleic Acids Research</i> , 26(18):4116-4120 (1998).
ESO	*	Kumar and Ellington, "Artificial evolution and natural ribozymes," <i>FASEB J.</i> 9:1183-1195 (1995)
ESO	*	Kusser, "Chemically modified nucleic acid aptamers for in vitro selections: evolving evolution," <i>Reviews in Molecular Biotechnology</i> 74:27-38 (2000)
ESO	*	Kuwabara et al., "Allosterically Controllable Ribozymes with Biosensor Functions," <i>Current Opinion in Chem. Biol.</i> 4:669-677 (2000)
ESO	*	Lasic and Needham "The 'Stealth' Liposome: A Prototypical Biomaterial," <i>Chemical Reviews</i> 95:2601-2627 (1995)
ESO	*	Lasic and Papahadjopoulos, "Liposomes Revisited," <i>Science</i> 267:1275-1276 (1995)
ESO	*	Lee and Lee, "Preparation of Cluster Glycosides of N-Acetylgalactosamine That Have Subnanomolar Binding Constants Towards the Mammalian Hepatic Gal/GalNAc-specific Receptor," <i>Glyconjugates J.</i> 4:317-328 (1987)

EXAMINER /Eric Olson/	DATE CONSIDERED 10/30/2006
------------------------------	-----------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No.	Serial No.
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		02-312-G (600/041)	10780,447
(Use several sheets if necessary)		Applicant: Vargeese et al.	
		Filing Date:	Group:
		February 13, 2004	1616

ESO	*	Lee et al., "Enhancing the Catalytic Repertoire of Nucleic Acids: A Systematic Study of Linker Length and Rigidity," <u>Nucleic Acids Research</u> 29:1565-1573 (2001)
ESO	18	Leirdal et al., "Gene silencing in mammalian cells by preformed small RNA duplexes," <u>Biochemical and Biophysical Research Communications</u> , 295, 744-748 (2002)
ESO	*	Li and Altman, "Cleavage by RNase P of gene N mRNA reduces bacteriophage λ burst size," <u>Nucleic Acids Research</u> 24:835-842 (1996)
ESO	*	Li et al., "Thermodynamic and Activation Parameters for Binding of a Pyrene-Labeled Substrate by the <i>Tetrahymena</i> Ribozyme: Docking is Not Diffusion-Controlled and is Driven by a Favorable Entropy Change," <u>Biochemistry</u> 34:14394-14399 (1995)
ESO	*	Limbach et al., "Summary: the modified nucleosides of RNA," <u>Nucleic Acids Research</u> 22(12):2183-2196 (1994)
ESO	19	Lin et al., "A Novel mRNA-cRNA Interference Phenomenon for Silencing bcl-2 Expression in Human LNCaP Cells," <u>Biochemical and Biophysical Research Communications</u> , 281, 639-644 (2001)
ESO	20	Lin et al., "Policing rogue genes," <u>Nature</u> , 402, 128-129 (1999)
ESO	*	Lindgren et al., "Translocation Properties of Novel Cell Penetrating Transportan and Penetratin Analogues," <u>Bioconjugate Chem.</u> 11:619-626 (2000)
ESO	*	Lisacek et al., "Automatic Identification of Group I Intron Cores in Genomic DNA Sequences," <u>J. Mol. Biol.</u> 235:1206-1217 (1994)
ESO	*	Liu et al., "Cationic Liposome-mediated Intravenous Gene Delivery," <u>J. Biol. Chem.</u> 270(42):24864-24870 (1995)
ESO	*	Long and Uhlenbeck, "Kinetic characterization of intramolecular and intermolecular hammerhead RNAs with stem II deletions," <u>Proc. Natl. Acad. Sci. USA</u> 91:6977-6981 (1994)
ESO	*	Ma et al., "Design and Synthesis of RNA Miniduplexes via a Synthetic Linker Approach," <u>Biochemistry</u> 32:1751-1758 (1993)

EXAMINER	/Eric Olson/	DATE CONSIDERED	10/30/2006
----------	--------------	-----------------	------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 (Rev. 2-32) INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	U.S. Department of Commerce Patent and Trademark Office		Atty. Docket No. 02-312-G (600/041)	Serial No. 10780,447
	Applicant: Vargeese et al.			
	Filing Date: February 13, 2004	Group: 1616		

ESO	*	Ma et al., "Design and Synthesis of RNA Miniduplexes via a Synthetic Linker Approach. 2. Generation of Covalently Closed, Double-Stranded Cyclic HIV-1 TAR RNA Analogs with High Tat-Binding Affinity," <i>Nucleic Acids Research</i> 21:2585-2589 (1993)
ESO	*	Maher et al., "Kinetic Analysis of Oligodeoxyribonucleotide-Directed Triple-Helix Formation on DNA," <i>Biochemistry</i> 29:8820-8826 (1990)
ESO	*	Martinez et al., "Single-Stranded Antisense siRNAs Guide Target RNA Cleavage in RNAi," <i>Cell</i> 110:563-574 (2002)
ESO	*	Matulic-Adamic et al., "Functionalized Nucleoside 5'-triphosphates for In Vitro Selection of New Catalytic Ribonucleic Acids," <i>Bioorganic & Medicinal Chemistry Letters</i> 10:1299-1302 (2000)
ESO	*	McCurdy et al., "Deoxyoligonucleotides with Inverted Polarity: Synthesis and Use in Triple-Helix Formation" <i>Nucleosides & Nucleotides</i> 10:287-290 (1991)
ESO	*	McKay, "Structure and function of the hammerhead ribozyme: an unfinished story," <i>RNA</i> 2:395-403 (1996)
ESO	*	McManus et al., "Gene Silencing Using Micro-RNA Designed Hairpins," <i>RNA</i> 8:842-850 (2002)
ESO	*	Mesmaeker et al., "Novel Backbone Replacements for Oligonucleotides," <i>American Chemical Society</i> , pp. 24-39 (1994)
ESO	*	Michel and Westhof, "Slippery substrates," <i>Nat. Struct. Biol.</i> 1:5-7 (1994)
ESO	*	Michel et al., "Structure and Activities of Group II Introns," <i>Annu. Rev. Biochem.</i> 64:435-461 (1995)
ESO	*	Michels and Pyle, "Conversion of a Group II Intron into a New Multiple-Turnover Ribozyme that Selectively Cleaves Oligonucleotides: Elucidation of Reaction Mechanism and Structure/Function Relationships," <i>Biochemistry</i> 34:2965-2977 (1995)
ESO	*	Milner et al., "Selecting effective antisense reagents on combinatorial oligonucleotide arrays," <i>Nature Biotechnology</i> 15:537-541 (1997)
ESO	*	Mohr et al., "A tyrosyl-tRNA synthetase can function similarly to an RNA structure in the <i>Tetrahymena</i> ribozyme," <i>Nature</i> 370:147-150 (1994)

EXAMINER /Eric Olson/	DATE CONSIDERED 10/30/2006
---------------------------------	--------------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 (Rev. 2-32) U.S. Department of Commerce Patent and Trademark Office INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		Atty. Docket No. 02-312-G (600/041)	Serial No. 10780,447
		Applicant: Vargeese et al.	
		Filing Date: February 13, 2004	Group: 1616

ESO	*	Moore and Sharp, "Site-Specific Modification of Pre-mRNA: The 2'-Hydroxyl Groups at the Splice Sites," <u>Science</u> 256:992-996 (1992)
ESO	*	Morris et al., "A New Peptide Vector for Efficient Delivery of Oligonucleotides into Mammalian Cells," <u>Nucleic Acids Research</u> 25:2730-2736 (1997)
ESO	*	Nakamaye and Eckstein, "AUA-Cleaving Hammerhead Ribozymes: Attempted Selection for Improved Cleavage," <u>Biochemistry</u> 33:1271-1277 (1994)
ESO	*	Nathans and Smith, "Restriction Endonucleases in the Analysis and Restructuring of DNA Molecules," <u>Ann. Rev. Biochem.</u> 44:273-293 (1975)
ESO	*	Nomura et al., "Development of an Efficient Intermediate, α -[2-(Trimethylsilyl) ethoxy]-2-N-[2-trimethylsilyl]ethoxycarbonyl]folic Acid, for the Synthesis of Folate (γ)-Conjugates, and Its Application to the Synthesis of Folate-Nucleoside Conjugates," <u>J. Org. Chem.</u> 65:5016-5021 (2000)
ESO	*	Oku et al., "Real-time analysis of liposomal trafficking in tumor-bearing mice by use of positron emission tomography," <u>Biochimica et Biophysica Acta</u> 1238:86-90 (1995)
ESO	*	Ono et al., "DNA Triplex Formation of Oligonucleotide Analogues Consisting of Linker Groups and Octamer Segments That Have Opposite Sugar-Phosphate Backbone Polarities," <u>Biochemistry</u> 30:9914-9921 (1991)
ESO	*	Pan et al., "Probing of tertiary interactions in RNA: 2'-Hydroxyl-base contacts between the Rnase P and pre-tRNA," <u>Proc. Natl. Acad. Sci. USA</u> 92:12510-12514 (1995)
ESO	*	Perreault et al., "Mixed Deoxyribo- and Ribo-Oligonucleotides with Catalytic Activity," <u>Nature</u> 344:565-567 (1990) (often mistakenly listed as Perrault)
ESO	*	Perrotta and Been, "A pseudoknot-like structure required for efficeint self-cleavage of hepatitis delta virus RNA," <u>Nature</u> 350:434-436 (1991)
ESO	*	Perrotta and Been, "Cleavage of Oligoribonucleotides by a Ribozyme Derived from the Hepatitis δ Virus RNA Sequence," <u>Biochemistry</u> 31:16-21 (1992)
ESO	*	Pieken et al., "Kinetic Characterization of Ribonuclease-Resistant 2'-Modified Hammerhead Ribozymes," <u>Science</u> 253:314-317 (1991)

EXAMINER /Eric Olson/	DATE CONSIDERED 10/30/2006
-------------------------------------	--

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No.	Serial No.
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		02-312-G (600/041)	10780,447
(Use several sheets if necessary)		Applicant: Vargeese et al.	
		Filing Date:	Group:
		February 13, 2004	1616

ESO	*	Player and Torrence, "The 2-5A System: Modulation of Viral and Cellular Processes Through Acceleration of RNA Degradation," <i>Pharmacol Ther.</i> 78:55-113 (1998)
ESO	*	Ponpipom et al., "Cell-Specific Ligands for Selective Drug Delivery to Tissues and Organs," <i>J. Med. Chem.</i> 24:1388-1395 (1981)
ESO	*	Praseuth et al., "Triple helix formation and the antigene for sequence-specific control of gene expression," <i>Biochimica et Biophysica Acta</i> 1489:181-206 (1999)
ESO	*	Puttaraju et al., "A circular trans-acting hepatitis delta virus ribozyme," <i>Nucleic Acids Research</i> 21:4253-4258 (1993)
ESO	*	Pyle et al., "Building a Kinetic Framework for Group II Intron Ribozyme Activity: Quantitation of Interdomain Binding and Reaction Rate," <i>Biochemistry</i> 33:2716-2725 (1994)
ESO	*	Reinhart and Bartel, "Small RNAs Correspond to Centromer Heterochromatic Repeats," <i>Science</i> 297:1831 (2002)
ESO	*	Reinhart et al., "MicroRNAs in Plants," <i>Genes & Development</i> 16:1616-1626 (2002)
ESO	*	Richardson and Schepartz, "Tethered Oligonucleotide Probes. A Strategy for the Recognition of Structured RNA," <i>J. Am. Chem. Soc.</i> 113:5109-5111 (1991)
ESO	*	Robertson et al., "Purification and Properties of a Specific <i>Escherichia coli</i> Ribonuclease which Cleaves a Tyrosine Transfer Ribonucleic Acid Precursor," <i>J. Biol. Chem.</i> 247:5243-5251 (1972)
ESO	*	Rossi et al., "Ribozymes as Anti-HIV-1 Therapeutic Agents: Principles, Applications, and Problems," <i>Aids Research and Human Retroviruses</i> 8:183-189 (1992)
ESO	*	Ruoslahti, "RGD and Other Recognition Sequences for Integrins," <i>Annu. Rev. Cell Dev. Biol.</i> 12:697-715 (1996)
ESO	*	Salo et al., "Aminoxy Functionalized Oligonucleotides: Preparation, On-Support Derivatization, and Postsynthetic Attachment to Polymer Support," <i>Bioconjugate Chem.</i> 10:815-823 (1999)
ESO	*	Sanghvi et al., "Improved Process for the Preparation of Nucleosidic Phosphoramidites Using a Safer and Cheaper Activator," <i>Organic Process Res. & Dev.</i> 4:175-181 (2000)

EXAMINER /Eric Olson/	DATE CONSIDERED 10/31/2006
------------------------------	-----------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No.	Serial No.
INFORMATION DISCLOSURE STATEMENT BY APPLICANT		02-312-G (600/041)	10780,447
(Use several sheets if necessary)		Applicant: Vargeese et al.	
Filing Date:		Group:	
February 13, 2004		1616	

ESO	*	Santoro and Joyce, "A general purpose RNA-cleaving DNA enzyme," <u>Proc. Natl. Acad. Sci. USA</u> 94:4262-4266 (1997)
ESO	*	Santoro et al., "Mechanism and Utility of an RNA-Cleaving DNA Enzyme," <u>Biochemistry</u> 37:13330-13342 (1998)
ESO	*	Santoro et al., "RNA Cleavage by a DNA Enzyme with Extended Chemical Functionality," <u>J. Am. Chem. Soc.</u> 122:2433-2439 (2000)
ESO	*	Saville and Collins, "A Site-Specific Self-Cleavage Reaction Performed by a Novel RNA In <i>Neurospora</i> Mitochondria," <u>Cell</u> 61:685-696 (1990)
ESO	*	Saville and Collins, "RNA-Mediated Ligation of Self-Cleavage Products of a <i>Neurospora</i> Mitochondrial Plasmid Transcript," <u>Proc. Natl. Acad. Sci. USA</u> 88:8826-8830 (1991)
ESO	*	Scaringe et al., "Chemical synthesis of biologically active oligoribonucleotides using β -cyanoethyl protected ribonucleoside phosphoramidites," <u>Nucl Acids Res.</u> 18:5433-5441 (1990)
ESO	*	Schmajuk et al., "Antisense Oligonucleotides with Different Backbones," <u>The Journal of Biological Chemistry</u> 274:21783-21789 (1999)
ESO	*	Schmidt et al., "Base and sugar requirements for RNA cleavage of essential nucleoside residues in internal loop B of the hairpin ribozyme: implications for secondary structure," <u>Nucleic Acids Research</u> 24:573-581 (1996)
ESO	*	Schwarz et al., "Evidence that siRNAs Function as Guides, Not Primers, in the <i>Drosophila</i> and Human RNAi Pathways," <u>Molecular Cell</u> 10:537-548 (2002)
ESO	*	Schwarze et al., "In Vivo Protein Transduction: Delivery of a Biologically Active Protein into the Mouse," <u>Science</u> 285:1569-1572 (1999)
ESO	*	Scott et al., "The crystal structure of an All-RNA hammerhead ribozyme: A proposed mechanism for RNA catalytic cleavage," <u>Cell</u> 81:991-1002 (1995)
ESO	*	Seela and Kaiser, "Oligodeoxyribonucleotides containing 1,3-propanediol as nucleoside substitute," <u>Nucleic Acids Research</u> 15:3113-3129 (1987)
ESO	*	Shabarova et al., "Chemical ligation of DNA: The first non-enzymatic assembly of a biologically active gene," <u>Nucleic Acids Research</u> 19:4247-4251 (1991)

EXAMINER	/Eric Olson/	DATE CONSIDERED	10/31/2006
----------	--------------	-----------------	------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No.	Serial No.
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		02-312-G (600/041)	10780,447
		Applicant: Vargeese et al.	
		Filing Date:	Group:
		February 13, 2004	1616

ESO	21	Sharp et al., "RNAi and double-strand RNA," <i>Genes & Development</i> , 13:139-141 (1999)
ESO	*	Silverman et al., "Selective RNA Cleavage by Isolated RNase L Activated with 2-5A Antisense Chimeric Oligonucleotides," <i>Methods in Enzymology</i> 313:522-533 (1999)
ESO	*	Stein and Cheng, "Antisense Oligonucleotides as Therapeutic Agents - Is the Bullet Really Magical?" <i>Science</i> 261:1004-1288 (1993)
ESO	*	Stein et al., "A Specificity Comparison of Four Antisense Types: Morpholino, 2'-O-Methyl RNA, DNA, and Phosphorothioate DNA," <i>Antisense & Nucleic Acid Drug Development</i> 7:151-157 (1997)
ESO	22	Strauss, Evelyn, "Molecular Biology: Candidate 'Gene Silencers' Found," <i>Molecular Biology</i> , Vol. 286, No. 5441, p. 886 (1999) [sometimes mistakenly referred to as being published in <i>Science</i>]
ESO	*	Strobel and Dervan, "Site-Specific Cleavage of a Yeast Chromosome by Oligonucleotide-Directed Triple-Helix Formation," <i>Science</i> 249:73-75 (1990)
ESO	*	Strobel et al., "Exocyclic Amine of the Conserved G-U Pair at the Cleavage Site of the <i>Tetrahymena</i> Ribozyme Contributes to 5'-Splice Site Selection and Transition State Stabilization," <i>Biochemistry</i> 35:1201-1211 (1996)
ESO	*	Strobel et al., "Minor Groove Recognition of the Conserved G-U Pair at the <i>Tetrahymena</i> Ribozyme Reaction Site," <i>Science</i> 267:675-679 (1995)
ESO	*	Sullenger and Cech, "Ribozyme-mediated repair of defective mRNA by targeted trans-splicing," <i>Nature</i> 371:619-622 (1994)
ESO	*	Sullenger et al., "Overexpression of TAR Sequences Renders Cells Resistant to Human Immunodeficiency Virus Replication," <i>Cell</i> 63:601-608 (1990)
ESO	*	Sun, "Technology evaluation: SELEX, Giliad Sciences Inc.," <i>Current Opinion in Molecular Therapeutics</i> 2:100-105 (2000)
ESO	*	Szostak and Ellington, "Ch. 20 - In Vitro Selection of Functional RNA Sequences," in <i>The RNA World</i> , edited by Gesteland and Atkins, Cold Spring Harbor Laboratory Press, pp. 511-533 (1993)
ESO	*	Szostak, " <i>In Vitro</i> Genes," <i>TIBS</i> 17:89-93 (1993)

EXAMINER	/Eric Olson/	DATE CONSIDERED	10/31/2006
----------	--------------	-----------------	------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No.	Serial No.
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		02-312-G (600/041)	10780,447
		Applicant: Vargeese et al.	
		Filing Date: February 13, 2004	Group: 1616

ESO	*	Tang et al., "Examination of the catalytic fitness of the hammerhead ribozyme by in vitro selection," <i>RNA</i> 3:914-925 (1997)
ESO	*	Torrence et al., "Targeting RNA for degradation with a (2'-5') oligoadenylate-antisense chimera," <i>Proc. Natl. Acad. Sci. USA</i> 90:1300-1304 (1993)
ESO	*	Turner et al., "Improved Parameters for Prediction of RNA Structure," <i>Cold Spring Harbor Symposia on Quantitative Biology</i> Volume LII, pp. 123-133 (1987)
ESO	*	Turner et al., "Free Energy Increments for Hydrogen Bonds in Nucleic Acid Base Pairs," <i>J. Am. Chem. Soc.</i> 109:3783-3785 (1987)
ESO	23	Tuschl et al., "Small Interfering RNAs: A Revolutionary Tool for Analysis of Gene Function and Gene Therapy," <i>Molecular Interventions</i> , 295, 3, 158-167 (2002)
ESO	24	Tuschl et al., "Targeted mRNA Degradation by Double-Stranded RNA In Vitro," <i>Genes & Development</i> 13: 3191-3197 (1999)
ESO	*	Uhlmann and Peyman, "Antisense Oligonucleotides: A New Therapeutic Principle," <i>Chemical Reviews</i> 90:544-584 (1990)
ESO	*	Usman and Cedergren, "Exploiting the chemical synthesis of RNA," <i>TIBS</i> 17:334-339 (1992)
ESO	*	Usman et al., "Automated Chemical Synthesis of Long Oligoribonucleotides Using 2'-O-Silylated Ribonucleoside 3'-O-Phosphoramidites on a Controlled-Pore Glass Support: Synthesis of a 43-Nucleotide Sequence Similar to the 3'-Half Molecule of an <i>Escherichia coli</i> Formylmethionine tRNA," <i>J. Am. Chem. Soc.</i> 109:7845-7854 (1987)
ESO	*	Usman et al., "Chemical modification of hammerhead ribozymes: activity and nuclease resistance," <i>Nucleic Acids Symposium Series</i> 31:163-164 (1994)
ESO	*	Usman et al., "Hammerhead ribozyme engineering," <i>Current Opinion in Structural Biology</i> 1:527-533(1996)
ESO	*	Vaish et al., "Isolation of Hammerhead Ribozymes with Altered Core Sequences by <i>in Vitro</i> Selection," <i>Biochemistry</i> 36:6495-6501 (1997)
ESO	*	Verma and Eckstein, "Modified Oligonucleotides: Synthesis and Strategy for Users," <i>Annu. Rev. Biochem.</i> 67:99-134 (1998)

EXAMINER /Eric Olson/	DATE CONSIDERED 10/30/2006
--------------------------	-------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.

FORM PTO-1449 (Rev. 2-32)	U.S. Department of Commerce Patent and Trademark Office	Atty. Docket No. 02-312-G (600/041)	Serial No. 10780,447
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)		Applicant: Vargeese et al.	
		Filing Date: February 13, 2004	Group: 1616

ESO	*	Volpe et al., "Regulation of Heterochromatic Silencing and Histone H3 Lysine-9 Methylation by RNAi," <u>Science</u> 297:1833-1837 (2002)
ESO	*	Wang et al., "Delivery of Antisense Oligodeoxyribonucleotides Against the Human Epidermal Growth Factor Receptor into Cultured KB Cells with Liposomes Conjugated to Folate via Polyethylene Glycol," <u>Proc. Natl. Acad. Sci. USA</u> 92:3318-3322 (1995)
ESO	25	Waterhouse et al., "Virus resistance and gene silencing in plants can be induced by simultaneous expression of sense and antisense RNA," <u>Proc. Natl. Acad. Sci. USA</u> , 95, 13959-13964 (1998)
ESO	*	Werner and Uhlenbeck, "The effect of base mismatches in the substrate recognition helices of hammerhead ribozymes on binding and catalysis," <u>Nucleic Acids Research</u> 23:2092-2096 (1995)
ESO	*	Wincott et al., "Synthesis, deprotection, analysis and purification of RNA and ribozymes," <u>Nucleic Acids Research</u> 23(14):2677-2684 (1995)
ESO	*	Wincott et al., "A Practical Method for the Production of RNA and Ribozymes," <u>Methods in Molecular Biology</u> 74:59-69 (1997)
ESO	*	Woolf et al., "Specificity of Antisense Oligonucleotides <i>in vivo</i> ," <u>Proc. Natl. Acad. Sci. USA</u> 89:7305-7309 (1992)
ESO	*	Wu and Wu, "Receptor-mediated <i>in Vitro</i> Gene Transformation by a Soluble DNA Carrier System," <u>The Journ. of Biol. Chem.</u> 262:4429-4432 (1987)
ESO	*	Yuan et al., "Targeted cleavage of mRNA by human RNase P," <u>Proc. Natl. Acad. Sci. USA</u> 89:8006-8010 (1992)
ESO	*	Zarrinkar and Williamson, "The P9.1-P9.2 peripheral extension helps guide folding of the <i>Tetrahymena</i> ribozyme," <u>Nucleic Acids Research</u> 24:854-858 (1996)
ESO	*	Zimmerly et al., "A Group II Intron RNA is a Catalytic Component of a DNA Endonuclease Involved in Intron Mobility," <u>Cell</u> 83:529-538 (1995)

EXAMINER	/Eric Olson/	DATE CONSIDERED	10/30/2006
----------	--------------	-----------------	------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication.